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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/813,102 | 03/22/2001 | Fow-Sen Choa | UMBC-2 | 8077 |

34610 7590 05/15/2003

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| EXAMINER |
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ULLAH, AKM E

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| ART UNIT | PAPER NUMBER |
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2874

DATE MAILED: 05/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/813,102

Applicant(s)

CHOA, FOW-SEN

Examiner

Akm Enayet Ullah

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3&6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

If applicant is aware of any prior art or any other co-pending application not already record, he/she is reminded of his /her duty under 37 CFR 1.56 to disclose the same.

Claims 1- 30 are pending in this application.

35 USC 102 Rejections

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 13 21, 22 and 25 are rejected under 35 U.S.C. 102 (b) as being clearly anticipated by Bhagavatula (USPATNO. 4,768,853).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-12,14-20,23-24 and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagavatula (USPATNO. 4,768,853).

The use of unwanted modes in the detector signal are caused by differential mode dispersion effects in the multimode optical fiber, an adaptive equalizer comprises a finite impulse response filter with adjustable coefficients, an adder that combines the

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detector signal with the adaptive equalizer signal, delay element receives the feedback signal are well known in this art as shown by Bhagavatula reference.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Bhagavatula reference i.e., a system for compensating for unwanted modes in multimodes fiber transmissions comprises a detector that receives an optical signal transmitted through a multimode optical fiber and converts the transmitted optical signal to a detector signal and an adaptive equalizer that generates an adaptive equalizer signal that when combined with the detector signal which compensates for unwanted modes in the detector signal.

Note that references need not be expressing everything in order to anticipate. Even a reference fails to recognize a function of the instant invention, the reference can anticipate if that function is inherent. In this case such function is inherent. In supporting of my statement a new case law have been cited as below:

Schering Corp. v. Geneva Pharmaceuticals Inc., 64 USPQ2d 1032 (DC NJ 2002) Decided August 8, 2002. **The prior art disclosure need not be express in order to anticipate.** Even if a prior art inventor does not recognize a function of his or her process, the process can anticipate if that function was inherent. **To establish inherency,** the extrinsic evidence must make clear that the missing descriptive matter **is necessarily present** in the thing described in the reference, and **that it would be so recognized by persons of ordinary skill.** Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art. However, the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition

patentably new to the discoverer. Insufficient prior understanding of the inherent properties of a known composition does not defeat a finding of anticipation.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maida Jr. et al, White and Bhagavatula'947 are also cited to show a typical a system for compensating for unwanted modes in multimode fiber fiber transmissions comprises a detector that receives an optical signal transmitted through a multimodes optical signal and converts the transmitted optical signal to a detector that combined with the detector signal. compensates for unwanted modes in the detector signal respectively.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akm Enayet Ullah whose telephone number is 703-308-4885. The examiner can normally be reached on Mon. - Thurs. 6:30-5:00.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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A Ullah
April 28, 2003


AKM ENAYET ULLAH
PRIMARY EXAMINER